AMENDMENTS TO THE CLAIMS

Please amend Claims 1, 5, 8, and 15 as indicated below.

1. (Currently amended) An image processing system comprising:

a filter selection mechanism for receiving an input pixel window and responsive thereto for generating a filter identifier based on one of

an edge parameter computed based on the input pixel window and

an activity metric computed based on the input pixel window, wherein a combination of both the edge parameter and the activity metric is not required for the generating of the filter identifier; and

a filter application unit coupled to the filter selection mechanism for receiving the filter identifier and applying a filter identified by the filter identifier to the input pixel window to generate an output pixel.

2. (Original) The image processing system of claim 1 further comprising:

an edge parameter evaluation unit for computing at least one edge parameter based on the input pixel window.

3. (Previously presented) The image processing system of claim 2 wherein the edge parameter is one of an edge angle, an edge sharpness, an edge curvature, and any measurable unit related to an edge.

4. (Original) The image processing system of claim 1 further comprising:

an activity metric evaluation unit for computing at least one activity metric based on the input pixel window.

5. (Currently amended) The image processing system of claim 4 wherein the activity metric is ~~one of~~ selected from a group consisting of a level of variation of a red color plane, a level of variation of a green color plane, a level of variation of a blue color plane, a level of variation of a luminance plane, a mean absolute deviation of a red color plane, a mean absolute deviation of a green

color plane, a mean absolute deviation of a blue color plane, and a mean absolute deviation of a luminance plane.

6. (Original) The image processing system of claim 1 wherein the filter application unit includes a filter repository for providing a plurality of filters for use by the filter application unit.

7. (Original) The image processing system of claim 6 wherein the filter repository includes one of a blurring filter, a smoothing filter, a sharpening filter, and an enhancement filter.

8. (Currently Amended) A method for processing a digital image having a plurality of input pixels comprising:

for each input pixel associated with the digital image

receiving an input pixel window corresponding to ~~the~~ a current input pixel;

generating a filter identifier based on one of an edge parameter and an activity metric, wherein a combination of both the edge parameter and the activity metric is not required for the generating of the filter identifier; and

applying a filter specified by the filter identifier to the input pixel window to generate an output pixel corresponding to the current input pixel.

9. (Previously presented) The method of claim 8 wherein the step of receiving the input pixel window corresponding to the current input pixel includes the step of:

receiving the input pixel window that includes the current input pixel and pixels adjacent to the current input pixel.

10. (Previously presented) The method of claim 8 wherein the step of receiving the input pixel window corresponding to the current input pixel includes the step of:

receiving the input pixel window that includes a N x N square of pixels centered about the current input pixel.

11. (Previously presented) The method of claim 8 wherein the step of generating the filter identifier based on one of the edge parameter and the activity metric includes the steps of:
computing at least one edge parameter based on the input pixel window; and
utilizing the edge parameter to generate the filter identifier.

12. (Previously presented) The method of claim 11 wherein the step of computing at least one edge parameter based on the input pixel window includes the step of:
computing one of an edge angle, an edge sharpness, an edge curvature, and any measurable unit related to an edge.

13. (Previously presented) The method of claim 8 wherein the step of generating the filter identifier based on one of the edge parameter and the activity metric includes the steps of:
computing the activity metric based on the input pixel window; and
using the activity metric to generate the filter identifier.

14. (Previously presented) The method of claim 13 wherein the step of computing the activity metric based on the input pixel window includes the steps of:
computing one of a level of variation of a red color plane, a level of variation of a green color plane, a level of variation of a blue color plane, a level of variation of a luminance plane, a mean absolute deviation of a red color plane, a mean absolute deviation of a green color plane, a mean absolute deviation of a blue color plane, and a mean absolute deviation of a luminance plane.

15. (Currently amended) A method for processing a digital image having a plurality of input pixels comprising:
receiving the digital image;
for each input pixel associated with the digital image
generating a level of variation based on a first window of pixels with reference to ~~the~~ an input pixel;

determining whether the level of variation is in a predetermined relationship with a predetermined level of variation;

when the level of variation is in the predetermined relationship with the predetermined level of variation, applying a first filter; and

when the level of variation is not in the predetermined relationship with the predetermined level of variation, generating a measure of an edge parameter based on a second window of pixels with reference to the input pixel, selecting an enhancement filter based on the measurement of the edge parameter, and applying the selected enhancement filter to a third window to generate an output pixel corresponding to ~~the~~ a current input pixel being processed from the each input pixel associated with the digital image, wherein a combination of both the edge parameter and an activity metric is not required for the selecting of the enhancement filter.

16. (Original) The method of claim 15 wherein the second window includes a neighborhood of pixels that includes the current input pixel.

17. (Original) The method of claim 15 wherein the first filter is a low pass filter that replaces the current input pixel with a blurred version of the current input pixel.

18. (Previously presented) The method of claim 15

wherein the step of generating the level of variation based on the first window of pixels with reference to the input pixel includes determining a mean absolute deviation (MAD) for color planes based on the first window of pixels; wherein the first window includes the input pixel;

wherein the step of determining whether the level of variation is in the predetermined relationship with the predetermined level of variation includes comparing the MAD with the predetermined threshold;

wherein the step of when the level of variation is in a predetermined relationship with the predetermined level of variation includes when the MAD is less than the predetermined threshold,

applying a low pass filter to the input pixel to generate the output pixel;

wherein the step of when the level of variation is not in the predetermined relationship with the predetermined level of variation includes when the MAD is not less than the predetermined threshold, selectively applying to the third window of pixels one set of filter coefficients selected from a group of sets of enhancement filter coefficients based on at least one edge parameter computed from the second window of pixels to generate the output pixel.

19. (Previously presented) The method of claim 15 wherein the step of generating the measure of the edge parameter based on the second window of pixels with reference to the input pixel includes the step of: computing one of an edge angle, an edge sharpness, an edge curvature, and any measurable unit related to an edge.

20. (Original) The method of claim 15 wherein the first window, the second window, and the third window are the same window of pixels.